

Applying Andragogy to the Open College Learner

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Abstract

Questionnaires were sent to 703 Open College students. The questionnaire asked questions regarding personal demographics, how they felt about andragogy as postulated by Malcolm Knowles, and invited responses pertaining to the institutional practices of Open College. Two hundred and ninety-four responses were received. The information was synthesized and used descriptively. The information regarding andragogy was also used descriptively and analyzed using chi-square. The statistics were compared by gender. No significant difference was found. Students rejected the concept of self-directed learning. They did use their past experience when preparing assignments, however. They also entered Open College in order to learn how to do something better rather than for esoteric reasons. In fact, their whole orientation to learning was very practical in nature. The factors motivating these learners were internal rather than external. In addition, institutional practices were identified that could further enhance the Open College experience.

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Chapter One

The Problem

Introduction

Obtaining a university degree or taking a university course without ever having to go to the campus is a distinct possibility for learners in Canada today. This form of education originated in Canada over a hundred years ago (Beamer, 1989). Distance education as a form of higher education was created out of necessity. Students could not physically be on campus, yet they had a desire to learn. The distance education movement remained small for most of its history, and was generally relegated to unimportant areas of the few universities who had programs (Beamer, 1989).

During the past twenty years, however, most universities in Canada have offered courses using distance education techniques. In Ontario alone 15 universities offer courses using various distance education methods (Council of Ontario Universities, 1989). Distance education has now become an integral part of Canadian universities. In fact two western

Canadian universities, Athabasca University and The Open Learning Institute, only offer courses and degrees via the distance education mode (Garrison, 1989).

Purpose of the Study

Utilizing the 1989 - 1990 student population of Ryerson Polytechnical Institute's Open College, this thesis will examine the applicability of Malcolm Knowles' theory of adult education to the distance education format. Within this context the purpose of this study is four fold:

1. To identify the demographic characteristics of Open College students, and determine their motivation for enrolling in a distance education course at Open College
2. To compare the institutional practices of Open college to Malcolm Knowles' five principles of adult education
3. To quantify the importance of Malcolm Knowles' five principles of adult education to effective learning by students at Open College
4. To identify institutional practices that either assist or deter effective learning at Open College.

Historical Context

In order to better understand the roots and potential of distance education in Canada it is important to examine distance education in an historical context.

Distance education in North America is one hundred two years old this year (1991). The first distance education program in North America began January 12, 1889 at Queen's University in Kingston Ontario. The Queen's University program was established to provide university level correspondence courses enabling elementary and secondary school teachers to obtain a degree (Beamer, 1989; Wagner, 1988).

In 1935 the Antigonish Movement was initiated at St. Francis Xavier University. This movement was a joint venture of the Canadian Broadcasting Corporation, the Canadian Federation of Agriculture, and the Canadian Association of Adult Education. As part of its contribution, the university extension department organized individuals into small community groups and supplied them with study materials. This program became known as "Farm Radio Forum" and was "...intended to widen people's horizons and help improve farmers' conditions during the depression" (Rothe, 1986, p.6).

The program was successful and created a rural society that took an activist approach to socio-economic problems in Canadian society. The farm forum philosophy became the basis of the philosophy of The National Film Board of Canada when it began in 1939 (Rothe, 1986).

From 1950 to 1973 The University of British Columbia's Centre for Continuing Education offered eighteen degree credit courses within the faculty of arts. This was followed by similar programs at the University of Regina in 1966. From 1970 onward there has been a burgeoning of distance education courses offered by universities across Canada (Rothe, 1986).

There are a number of reasons which help explain the growth of distance education in Canada, and indeed around the world. The first explanation for this growth must be attributed to the improvements in methods of communication. Communication between distance education students and their institutions of higher learning are now accomplished via correspondence, radio broadcasts, audio and video cassettes, cable television, satellite communication, teleconferencing, and computer communication (Hall, 1987; Garrison, 1989).

The second explanation for the growth in distance

education must be attributed to the phenomenal success of the British Open University, which was chartered in 1963 (Perry, 1977). This university offers fully accredited courses primarily using television as a delivery method. Between the years 1970 and 1990, the Open University has had intense growth in numbers of students; and it has proven to be a cost effective manner in which to deliver educational material (Perry, 1977). The student population is now approaching one hundred thousand and the operating costs per student have been calculated to be between one quarter to one third those of conventional universities (Wagner, 1983). Due to this success the open university concept was also adopted in other countries of the world such as Sweden and Holland (Perry, 1977).

The growth of distance education in Europe did not go unnoticed in Canada. In the late 1960s and 1970s many universities in Canada joined the distance education phenomenon (Council of Ontario Universities, 1984). Two educational institutions even took their name from the British Open University concept. Open College, the distance education college of Ryerson Polytechnical Institute, was established in 1971 (Paddy, 1989), and the Open Learning Institute was established in the late 1970s by the Government of

British Columbia (Rothe, 1986).

The third reason for the growth in distance education is directly related to the number of adults already established in the work force who are seeking university degrees, or a chance to upgrade their skills to meet an ever changing society. Moore (1986) states that studies undertaken in Canada, The United Kingdom, and The United States of America estimate that between fifteen and twenty-two percent of the adult population are involved in institutionalized learning. These learners need a form of education that will fit into a life-style already filled with a multitude of responsibilities and roles. Many adult learners seek out distance education programs because they have found that these courses meet their learning needs, and yet allow them to remain in the work force (Garrison, 1989).

Problem

While there has been a great deal of growth in the number of courses and degrees offered through distance education, there has been very little research devoted to examining what is known about how adults learn related to distance education practices. Garrison

(1989) Understanding Distance Education - a framework for the future states:

The majority of distance education is concerned with meeting the educational needs of adults. However, while educators in both fields are generally aware of this commonality, there doesn't seem to have been much interest in exploring this relationship. Distance educators have not made substantial efforts to integrate the larger literature base of adult education in common areas of study and adult educators have not enthusiastically embraced distance education methods. (p.103)

While distance education began January 12, 1889, adult education as a field of study began only in 1926 with Edward Lindeman's work The Meaning of Adult Education. Serious research efforts into adult education, however, began in the early 1960s. Similar serious research efforts into distance education, however, did not commence until 1981 when Borje Holmberg wrote Status and Trends of Distance Education (Garrison, 1989).

Distance education today is nearly twenty years behind adult education as a field of study (Garrison, 1989). This is based on the lack of a widely accepted

core of theory unique to distance education. Garrison (1989) writes that distance education and adult education, out of necessity, will move closer together in the future, however. Distance education with its ever increasing technological base and flexibility of delivery, will become integrated with adult education learning theory, to better meet the needs of an ever increasing group of adult learners.

Importance of the Study

Distance education has greatly increased in importance over the last two decades as a method of obtaining university credits. There are indications that it will continue to grow in importance because adults seek education that fits their life-style; and the technology of communication has expanded allowing distance education to become more interactive. The new interactive technologies make this form of education more appealing to both educators and learners alike.

The Director of Open College has expressed interest in the research, either to confirm that the learners are well served by Open College, or with a view to change should the study show areas where

institutional practices could be altered to better serve the client. This study could, therefore, affect future students of Open College.

Definition of terms

In order that the goal of the thesis may be more easily understood, the terms used in this proposal will now be defined.

1. **Andragogical model** - This term was coined by Malcolm Knowles and means "...the art and science of helping adults learn" (Knowles, 1980, p.30.).
2. **Axiom** - This term will mean statements "...whose truth can be considered self evident" (Reber, 1988, p.77).
3. **Distance education** has the following three components:
 - * -the majority of educational communication takes place between the learners and the teachers via distance,
 - * -it involves two-way communication between learners and teachers for the purpose of supporting

and encouraging the learning process,

- * -technology is used to accomplish the two-way communication (Garrison, 1989).
- 4. **Effective** - When used in the context of effective distance education or effective learning, this term will be used to describe these concepts as perceived by the learner.
- 5. **Institutional practices** - This is a broad term referring to the practices and policies of the institution offering the distance education courses.
- 6. **Model** - "A representation that mirrors, duplicates, imitates or in some way illustrates a pattern or relationships..." (Reber, 1988, p.447).
- 7. **Pedagogical model** - This has represented the traditional teaching model. It means "...the art and science of teaching children" (Knowles, 1985, p.8).

8. **Self-directed learning** - This term has come to mean being responsible for one's own learning (Knowles, 1985).
9. **Theory** - "...a collection of interrelated general principles that is put forward as an explanation of a set of known facts and empirical findings" (Reber, 1988, p.769).

Scope and Limitations of the Study

A questionnaire has been developed for use in this thesis. It identified the learners and their motives for enrolling in distance education courses. It was also designed to help identify institutional practices at Open College, and measure the importance of adult learning principles as applied to the students.

Open College courses are offered in three modes. Some are offered via a radio broadcast, some are offered by audio cassette and the others are correspondence courses. It would be difficult to generalize the findings from this study to other institutions which offered distance courses using other technologies and have different institutional practices. In addition to this limitation the course

selection is limited. Open College attracts a high proportion of Registered Nurses and women. The findings, therefore, may not be accurate if applied to another distance education institution whose courses have historically been taken by men.

The questionnaire was mailed to all students who took Open College courses in 1989 - 1990. The questionnaire was sent to a total of 703 students. After the initial mailing of the questionnaire follow-up procedures, more fully explained in the methodology chapter of this document, were utilized to try to obtain a sixty percent return rate. "For most surveys that attain a sixty percent return rate ... the nonrespondents will probably not affect the results in any appreciable way" (McMillan & Schumacher, 1989, p.295).

The costs incurred in this study were absorbed by Open College. In return Open College received a copy of the study for their use. To further disseminate the findings of this study, the results will be submitted to the Journal of Distance Education or Research in Distance Education for publication at a future date.

Chapter Two

Review of Related Literature

During the 1970s Canadian Universities were confronted by an ever increasing number of requests to provide opportunities for part-time study other than the traditional evening and summer-time classes (Council of Ontario Universities, 1984). These requests for increased opportunities came from adults, some of whom were unable, for a number of reasons, to attend regular day or evening classes; others were reluctant to do so. The emergence of this demand coincided with the increasing availability, and use of convenient good quality recording and play-back equipment. This technology was originally based on tape cassettes, radio broadcasts, and cable television. More recently, technology involving satellite and computer communication has been utilized by some universities. This approach to learning, in which the instructor and learner are separated, often by hundreds of miles, has become widely known as distance education. The technology of communication has greatly improved in the last twenty years, and many more courses are offered each year utilizing this technology; there has, however, been little research

devoted to the application of adult learning principles to distance education students.

This review of the literature will begin by examining the basic principles of adult learning that have come to be known as the andragogical model (adult education model). This will be followed by a discussion of research carried out by distance educators, who have integrated aspects of adult learning theory with distance education theory and practice.

During the last two decades the preeminent writer regarding the theory and practice of adult education has been Malcolm Knowles. Knowles' model of adult learning has been developed over the past twenty years, and while there is some debate surrounding aspects of the model, it has remained an important guide into adult learning, for practitioners and researchers alike. Knowles called his model andragogical, meaning "...the art and science of helping adults learn" (Knowles, 1980, p.30). The andragogical model is based on five basic assumptions.

1. The concept of the learner.

Knowles' first assumption is perhaps his most controversial one. Knowles states that adult learners have a psychological need to be self-directing. It is his contention that the very psychological definition of adult is "one who has arrived at a self-concept of being responsible for one's own life, of being self-directing" (Knowles, 1985, p.9). When placed in a position of dependency in a learning environment the adult has internal conflicts which interfere with the learning process. Brookfield (1986) disagrees with this aspect of Knowles' model. Adults he argues, may very well be self-directed at work and in their personal lives, but in learning situations it appears to be a rarity.

Brundage and Mackeracher (1980) take a more reasoned approach to the discussion. In terms of adult learning they state that when adults "...enter a new learning experience, they begin with dependent-type behaviours and move first to independent behavior and then to interdependent behavior during the course of the learning activity" (p.55). They go on to say that the progression from dependent to independent to interdependent can and should be encouraged by a

skilled facilitator. Those learners who are less self-directed should be encouraged to be more self-directed.

Cranton (1989) adds to the discussion by noting that learners tend to be dependent when the area of study is new to them, their self-esteem is low and when they have never experienced self-directed learning before. Whether being self-directed in learning environments is the norm or a rarity, it is important that the adult educator be aware that adult learners will possess this quality to varying degrees.

2. Role of the learner's experience.

The andragogical model assumes that adults bring a much greater amount, and different quality of experience, than younger people, to any learning experience. The longer we live the more experiences we accumulate. The quality of these experiences is enhanced by the multiple roles adults assume in the normal course of their day (Brundage and Mackeracher 1980; Knowles, 1985).

Experience can be both a positive and negative factor in adult learning. The positive aspect is rather easily understood. The more experience a learner has, the greater resource he / she can be to

himself / herself, a facilitator, and other members of a learning group. Past experiences, however, may also result in a narrow perspective and a prejudicial way of thinking and acting on behalf of an adult learner (Knowles, 1985).

Knowles (1985) states that adult educators must be cognizant of adult learner's experiences for an even more important reason. He argues that an individual adult's experience becomes the source of that individual adult's self-identity. If the experience is ignored, and not taken advantage of in the learning situation, it is not just the experience that is rejected, it is also interpreted by the learner as personal rejection (Knowles, 1985).

3. Readiness to learn.

In 1969 Carl Rogers wrote that in order to learn the learner must feel the subject matter is relevant. Knowles (1985) incorporated this idea into the andragogical model which states that "...adults become ready to learn when they experience a need to know or do something in order to perform more effectively in some aspect of their lives" (p.11). Brookfield (1986) opposes this tenet of the andragogical model, pointing

out that adults are continually seeking knowledge and expertise in areas unrelated to their immediate life situation.

4. Orientation to learning.

Knowles (1985) states that adults enter an educational activity with a "...life-centered, task-centered, or problem-centered orientation to learning" (p.12). Certainly there is no denying that these qualities are evident in many adult learners to varying degrees.

Moore (1986) describes adult learners as falling into three groupings. The first group of adults are taking educational courses because they feel the course generally meets their learning goals. The second group of adult learners are enrolled in courses in order to become accredited. They need a degree or certificate to obtain, or maintain a job. The third group of adult learners are involved in order to satisfy an emotional need for dependence. These individuals need affection, reassurance and approval. They have learned that this can be achieved at school (Moore, 1986). Moore (1986) states that many teachers fail to assist learners to become self-directing and independent. These students

often leave school independent and adults in many ways, but as learners they remain dependent.

5. Motivation to learn.

The andragogical model acknowledges that external motivators, such as a raise or a better job, play a minor part in motivating adults to learn. The more potent motivators for adults, however, are internal. The increased self-esteem, greater confidence, and self-actualization are all important motivators of adult learners (Brundage and Mackeracher 1980; Knowles, 1985).

Since the inception of the andragogical model educational scholars have debated its value to the practicing educator. In his more recent writings, Knowles' position appears to have softened concerning some of the more controversial aspects of the model. He has broadened the meaning of andragogy to mean "a system of concepts that, in fact, incorporates pedagogy (the art and science of teaching children) rather than opposing it" (Knowles, 1985, p.8). He had also originally proposed that andragogy was the model for teaching adults while pedagogy was suited to the teaching of children (Knowles, 1980). Knowles now

recognizes that some children also benefit from the andragogical model (Knowles, 1985). Additionally, Brookfield (1986) has pointed out that not all adults possess the skills and abilities necessary for self-directed learning. (See Table 1 for a summary of the assumptions of the andragogical and pedagogical models.)

Table 1

Assumptions of the andragogical and pedagogical models

<u>Assumption</u>	<u>Andragogical</u>	<u>Pedagogical</u>
Concept of the learner	- self-directing	- requires direction
Learner's experience	- a rich resource for learning	- lacks experience
Readiness to learn	- from life's tasks and problems	- age level specific
Orientation to learning	- task or problem centered	- subject centered
Motivation	- internal rewards primarily	- external rewards & punishments

(adapted from Knowles, 1980).

Few distance educators have entered the debate regarding the value of the andragogical model to distance education. The reasons for this lack of

interest is not clear. It may be the result of the highly directive nature of distance education. The adult educator working in a distance education milieu is caught between a personal philosophic acceptance of a learner-centered view and the highly directive transmittal model of distance education. For those distance educators who have put forward models of distance education, all seem to embrace many of the concepts expressed or implied in the andragogical model. Curiously, however, while embracing the concepts, the terms "adult education" or the "andragogical model" are rarely mentioned.

Holmberg (1985, 1986) is a distance educator who has proposed a theory of distance education that contains many of the elements of the andragogical model. He postulated that his theory of distance education would motivate learners and promote learning pleasure and, therefore, learning effectiveness. Holmberg's (1985, 1986) theory consists of five key elements.

1. The subject studied must be relevant to the learner's individual needs.
2. Learners must be made to feel at ease and have a good rapport with the learning institution.
3. Learners must have easy access to the course

content.

4. Learners must be involved in discussions and decisions concerning the course.
5. Real and meaningful dialogue must be established between the learner and the instructor / tutor.

Many of these same ideas are echoed by Fahy.

While not writing about a theory of adult education per se, Fahy (1987) touches on a key concept that seems inherent in both adult education and distance education literature. He asks the question: "What would adult education be like if institutions treated students like customers?" (p.18). He goes on to state that educational institutions will need to treat adult students like customers in the future in order to attract and keep them. Fahy (1987) suggests educational institutions will need to embrace a client-centered philosophy. This client-centered philosophy seems very much in keeping with the philosophy of both adult and distance educators. The following are the key elements of Fahy's (1987) client-centered philosophy.

1. Educational material must be easily accessible to learners.
2. Client requests and suggestions regarding a course must always be welcome.

3. Staff represent the institution and therefore must be pleasant in their dealings with the client, and be available to the client on a regular basis.
4. All courses must be of proven quality, effective and relevant to the learner.
5. Everyone in the institution must believe that learners have a right to be treated as both adults and customers.

A study by Bean and Metzner (1985) of adult undergraduate students seems to support this philosophy. They found that regardless of how well adult students were doing in their studies, they tended to continue only if they had a supportive environment and had the belief that the course was worthwhile for them, that they could complete the work, and that the whole experience was not going to be too stressful. Even if good academic results were being achieved, if they experienced a non-supportive environment, or negative psychological conditions, they tended to leave the program.

Moore (1986) wants distance educators to give learners more freedom to be self-directed. He suggests that "instead of mailing all the course materials to every student...after consulting with tutors students could call in for a selection of course items relevant

to their own interests and needs" (p.18). It is Moore's position that distance learners should be free to choose learning materials in accordance with their own personal interests. This, he argues, truly puts the learner in the center of the learning process.

Leslie (1987), a course designer at the Open Learning Institute, responds to Moore's call for more self-direction in distance education courses by stating she has not noticed the demand for self-direction in distance students. She goes on to say that, quite to the contrary, what distance education learners want are "... unambiguous instructions and step-by-step directions; they want clear objectives and direct routes to achieving them" (p.61). In her experience distance learners do not want flexibility of choice in materials.

While Moore (1986) and Leslie (1987) are polarized in their view of whether distance education should become more or less self-directed, Pratt (1988) tends toward a more moderate position. Pratt (1988) states educators "need to examine the line of descent from andragogy to learner control" (p.161). Pratt (1988) goes on to say that "...it is taken as axiomatic that self-directedness of adult learners necessitates their control over instructional functions" (p.160). Pratt

argues that this is misleading. The educational transaction is neither teacher centered nor learner centered. The true educational transaction must be a collaborate effort between the teacher and the learner (Pratt, 1988).

Garrison (1988), in writing about the educational transaction, agrees with Pratt (1988). Garrison states:

Education is a transactional dialogue involving a mutually respectful relationship between teacher and student who critically and collaboratively analyze worthwhile areas of interest such that new perspectives and a new consciousness emerge....The real issue for distance educators is providing immediate and sustained two-way communication between teacher and student so that learner needs, values, and perspectives are balanced with those of the teacher and decisions are made collaboratively. (p.126)

Whether distance education should be more or less self-directed, may be related to the individual learner's personality type. Krajnc (1988) analyzed social isolation and learning effectiveness in distance education. She found that the learners' approach to education predetermined their expectations. Learners

who felt they needed to be taught seemed to suffer from the social isolation associated with distance education. Learners who believed they could learn without being taught functioned effectively in distance education courses. She goes on to point out that learners with either low self-confidence or who are shy and withdrawn, appreciate distance education because they do not have to interact in the classroom setting.

Krajnc's (1988) description of individuals who preferred, or were successful, in distance education courses, seems to mirror what Jung (1974) described as an introvert. "The introvert is not forthcoming, he is as though in continual retreat.... He holds aloof... has a distinct dislike of society as soon as he finds himself among too many people" (p.550). The introvert needs to be on his own a great deal of the time. "His best work is done with his own resources, on his own initiative, and in his own way" (p.551).

Jung's (1974) description of psychological types consists of eight groups: two attitudes, introversion and extraversion, each with four functions (thinking, feeling, sensation, and intuition). Individuals possess each attitude and function to varying degrees. Both introversion and extraversion interact with one of the four functions (which is described as dominant) to

produce eight psychological types.

Since Jung first postulated his theory of psychological types in the early 1920s, other authors have followed with their own versions, based on Jung's original work. Cranton and Knoop (1990) are presently pilot testing Professional Effectiveness Technologies type test (PET type test). This test uses the same attitudes (introvert / extrovert) as well as the same functions as Jung's original work.

The pilot study for the PET type test indicates that individuals with a personality that is classified as introverted / intuitive may be best suited to being self-directing in learning activities. An individual with this personality not only needs time alone but also does not require teacher direction to learn. Individuals with a personality classified as introverted / intuitive "...are fascinated by the possibilities that life holds, and want to explore every detail..." (Cranton and Knoop, p.8, 1990). These individuals require little guidance to learn and they seek information independently.

The personality type of the learner should be considered in the application of the andragogical model to the distance education format. Distance education above all else requires the individual to proceed with

learning having minimal input from teachers or tutors.

Descriptions of the andragogical model have been written about and critiqued by adult educators for the past twenty years. Distance educators for the most part, however, have not entered the debate. This may be because of the highly directive nature of distance education. An adult educator working in a distance education milieu is torn between a personal philosophic acceptance that education should be learner centered, and the highly directive transmittal model distance education has taken.

Those distance educators who have integrated concepts embodied in the andragogical model with distance education, have done so in a theoretical manner. What still remains to be done is to test these adult education concepts on the distance education client. Once this has been done, a model for effective distance education practices can be constructed which may act as a guide for the educational institution.

Chapter Three

Methodology

A descriptive survey study design was chosen as the method of investigation. The population surveyed was all students who participated in an Open College course over a period of one year. The reason a descriptive survey design was chosen is that surveys can be used to describe the incidence, frequency, and characteristics of a population (in this case Open College students). In addition surveys can be used to explore relationships between variables. (McMillan & Schumacher, 1989).

Survey Procedure

The data collection for this study was accomplished by surveying Open College students. A questionnaire was mailed to all students who took an Open College course in the 1989 -1990 school year. This resulted in a mailing of 703 questionnaires. A letter of transmittal, and a self-addressed stamped envelope were also included with the questionnaire. The letter of transmittal included sections introducing

me and explaining the purpose of the study, the importance of their response to the study, describing the questionnaire in general terms, requesting cooperation and reminding the learners that anonymity would be guaranteed.

Two weeks after the initial mailing a second mailing was sent. Again, all Open College students in the 1989 - 1990 school year received a follow-up mailing. This letter thanked those who had already mailed in the questionnaire, and ask them to ignore the follow-up letter. To those who had not mailed in the questionnaire an additional request for their assistance was made. Included in this mailing was another questionnaire and self-addressed stamped envelope.

The original mailing resulted in 234 questionnaires being returned. The second mailing resulted in an additional 60 questionnaires being returned. There were also 54 questionnaires returned because the individuals had moved and left no forwarding address. The 294 completed questionnaires represent a return rate of 45.3%.

Instrument

The questionnaire used in this study was developed specifically to identify the demographic characteristics of the learners, measure how important Knowles' principles of adult learning are to them as students at Open College, and identify those learners who have the personality type introverted / intuitive.

The format of the questionnaire from Questions 13 to 33 was adapted from Cranton and Knoop's PET type test. Specifically Questions 14, 15, 17, 19, 21, 23, 25, 27, 29, and 31 were taken directly from the PET type test, to identify those individuals who have the personality type introverted / intuitive. This personality type is associated with the ability to be self-directed when it comes to learning (Cranton and Knoop, 1990). (A copy of the instrument and letters of transmittal are included as Appendix A.)

Questions pertaining to the introverted / intuitive personality type were chosen from the PET type test because of convenience of obtaining permission for use, and the format of the test fit the structure of the questionnaire.

Cranton and Knoop (1990) report a reliability of .87 for the introverted / intuitive scale of the PET

type test. This compares favorably with the reported reliability of the Myers-Briggs type test. Mendelsohn (1965) (cited in Herbeson, 1990) reported a reliability of .70 for the Myers-Briggs type test, based on a test re-test procedure over fourteen months.

At the time this study was being prepared the validity of the PET type test was still being determined. It is, however, expected to be proven to be at least as valid as the Myers-Briggs type test. In developing the PET type test Cranton and Knoop (1990) attempted to eliminate potential validity problems by returning to Jung's original work to develop their instrument.

Striker and Roth (1964) (cited in Herbeson, 1990) found the Myers-Briggs type test to have a validity problem. The introversion / extroversion scale tends to measure an interest in things and people, rather than concepts and ideas.

A five-point Likert scale was used with the questions in the instrument pertaining to the principles of adult learning and personality type.

1 - NO! 2 - no 3 - no & yes 4 - yes 5 -YES!

The questions requesting demographic information asked the respondent to mark the appropriate category or write in an answer where indicated.

The main threat to the validity of the study came from the questionnaire. Once developed, a pilot study was undertaken in May of 1990. The pilot study was administered in a classroom setting to thirty-one Open College students enrolled in a spring semester course. The results from this study enabled weak or misleading questions to be corrected or eliminated from the instrument prior to the full study being undertaken.

Weakness in Survey Methodology

Travers (1969) cautions researchers that data generated from surveys only appear to have a random quality. Theoretically, each member of the surveyed population has an equal chance to respond to the questionnaire, and thus all demographic groups are equally represented. In studies of return rates for direct mail questionnaires, however, this has not proven to be true. The highest return rates of direct mail questionnaires come from those with university education (Travers, 1969, p.200). This is a particularly important point that must be borne in mind

when analyzing the results because Open College admits all adult learners regardless of past academic success. It is not uncommon to have university graduates and adult learners who have not completed high school, in the same program or course.

Statistical Analysis

The data generated from the returned questionnaires were analyzed in two ways. The demographic data were analyzed descriptively. This procedure allowed for the development of a clear understanding of the students attending Open College, and why they enrolled in a course.

Question # 34 was an optional open-ended question. This question was analyzed and classified according to the responses. The information generated from these responses assisted in understanding institutional practices of Open College as well as what students liked and disliked in their Open College experience.

Questions 13 to 33 were analyzed using chi-square, a non-parametric statistical test. Chi-square examines the dependence among variables. The respondents were divided into two categories based on gender, and the percentages of responses were compared across gender.

This test yields a chi-square statistic. A level of significance of .05 or less, was used to reject the null hypothesis.

Pilot Study

In May of 1990 the questionnaire was completed in a classroom setting by thirty-one Open College students. These students were told that this was a pilot study and that the goal of the pilot study was to refine the questionnaire for a larger study. They were not only asked to complete the instrument, but also to mark any ambiguous or misleading questions and explain why they felt these questions were a problem. They were then given both the questionnaire, as well as the letter of transmittal. It took approximately ten minutes for the letter of transmittal to be read, and the questionnaire completed.

What follows here is a question by question description and analysis of the data that were collected in the pilot study. In addition, the pilot study showed areas in the questionnaire where changes were necessary for the sake of clarity. These changes are also explained.

Findings

1. Gender

Of the 31 respondents, seven (22.6%) were male and 24 (77.4%) were female. Approximately 20 of the 31 respondents in the pilot study came from a group of adults taking an accounting class. Accounting has historically attracted more males than females and therefore the overall percentage of males taking Open College courses may prove to be even lower than that which was achieved in the pilot study.

2. Age

The age range of the 31 respondents was from 21 to age 50. Only four respondents (12.9%) were between the ages 21 and 25 while 18 (58.1%) were over the age of 31. The largest single age group was from age 26 to age 30. This age group comprised nine persons (29%) of the sample population.

It is expected that the age range of the study will increase with even heavier concentrations of learners in the over thirty age groups. The reason for this is that the pilot study was undertaken during the summer

semester when Ryerson and York University students often enroll in Open College courses to lighten their course load in the fall semester. This, coupled with the probability that older adults may have commitments in the summer months that preclude a summer course, seems to indicate that the median age of Open College learners may be increased over the pilot study.

3. Marital status

In the sample population 15 (48.4%) were married while 11 (35.5%) were never married and five (16.1%) were separated / divorced. The 35.5% of the respondents who have never been married is a surprisingly large percentage of the sample population particularly because over 58% of the sample is over the age of 31. This large percentage of never married may reflect individuals who are career oriented and direct free time to personal and professional development.

4. Number of children you are supporting

The majority of the respondents (18 or 58.1%) are not supporting any children while another six (19.3%) are supporting only one child. Only four people (13%)

are supporting two children while a mere three persons (9.6%) are supporting three children. These figures reflect the large percentage of unmarried individuals in the sample population. They may also reflect the older age of these learners (25.9% of the sample population is between 41 and 50 years of age) whose children may be self-supporting.

5. Highest educational level achieved

The educational level of respondents in the pilot study was quite high. There were 23 individuals (74.2%) who had completed some university while another four (13%) had completed a university degree. One individual had a community college diploma while three others had post graduate educations.

The high level of educational achievement in the pilot study seems somewhat surprising. Open College has no admission requirements. Any adult is welcome to apply to take a course through Open College regardless of previous academic achievement. The high percentage of university level students may prove to be an anomaly that is not reflected in the statistics of the larger study.

6. Are you employed outside the home?

This question showed a startling 90.3% (28 of the 31 respondents) are employed outside the home. It is not known if this high percentage is indicative of the larger Open College population. These results may merely be a reflection of the students in the accounting course who made up a large percentage of the respondents in the pilot study.

7. If yes, is this work part-time or full-time?

Of the 28 respondents working outside the home 22 (78.6%) are employed on a full-time basis, while six (21.4%) regard themselves as being employed part-time.

8. How many courses have you taken through Open College?

Most of the respondents in the pilot study (23 of 29 or 79.3%) had taken only one Open College course. Another five (17.2%) had taken two or three courses through Open College, while only one individual had taken four or five courses. Two individuals chose not to answer this question.

It is not known whether these percentages represent the typical Open College student profile. It is highly probable, however, that the percentage of learners who have taken more than one course will be higher in the research study than it was in the pilot study. Both the accounting course, which represents 20 respondents, and another gerontology course, from which six respondents were chosen, are introductory courses. As the questionnaire is completed by other Open College students who are further along in their programmes, the percentages of students who have taken multiple courses should increase.

9. Why did you enroll in an Open College course?

Despite a request that the respondent select only one answer and that it be the main reason they chose an Open College course, nine individuals recorded written answers in the category marked Other. When these written answers were analyzed it was obvious that they fit the categories in the questionnaire but that the respondents felt a need to explain their reasoning in a written format. No change has been made to add more categories.

The responses to this question reflected all seven

categories. Only the categories to qualify for graduation ... faster (which had eight responses or 28.6%) and courses accessible by distance mode (which had 11 or 39.3%), received more than 10% of the responses.

10. What grade best reflects the grade you expect in Open College courses?

Fifteen (48.4% of the 31 respondents) indicated they expected an A grade while another 14 (45.2%) indicated they expected a B grade. These high expectations from the respondents may reflect their maturity (87.1% were over age 26) and experience both in the business world and educationally (90.3% were employed outside the home and all but one student had prior university level learning experience).

In summary, the demographic information from the pilot study suggests a profile of a typical Open College learner (see Table 2).

Table 2

A Typical Student as Reflected in the Pilot Study

<u>Characteristic</u>	<u>Percentage of Respondents</u>
female	77.4
26 years of age or older	87.1
married	48.4 *
no dependent children	58.0
has some university education	74.2
employed outside the home	90.3
employed on a full-time basis	78.6
has taken only one course through Open College	79.3
enrolled because of accessibility	39.3
expects either an A or B grade	93.6 **

* An additional 35.5% were never married. This percentage is considered quite large when 87.1% of this group are over the age of 26, and 58.1% are over the age of 31 years.

** Fifteen or 48.4% of the respondents indicated they expected an A grade while another 14 or 45.2% expected a B grade.

Changes to the Instrument

In completing the questionnaire, the respondents indicated two places where they felt clarification or additions would improve the instrument. What follows is a description of the suggested changes.

Three respondents said that question number four, which asks for the number of children being supported, was unclear. It was suggested that the word "financially" be added in front of the word

"supporting". This has been done and it does appear to lessen the chance of a misinterpretation by future respondents.

The second change was suggested by two of the respondents, as well as The Director of Open College. It was suggested that a question be designed to determine the distance students live from Toronto. It was stated that this would help complete the demographic description of the Open College learner.

This question has been inserted as question number six. It asks the respondents to select the approximate distance they live from Open College. There are six choices. The initial choice is within Metropolitan Toronto. Choices two through five inclusive increase the distance from Open College by fifty miles each. The last choice is a distance of more than two hundred miles from Open College.

A second question has also been added to determine if the course taken was by written / correspondence or audio / cassette. This question was inserted as Question 10. With up to one third of students taking courses using written / correspondence, and the other two thirds audio / cassette, a comparison between these two distinct groups should be drawn.

In addition to the suggestions made by the

respondents, there were five other areas where it was obvious that a change in the questionnaire was needed in order to improve the readability.

In reviewing the questionnaire it is noted that there was no category under marital status (Question 3) to accommodate those who are widowed. This category was added to the questionnaire as: separated / divorced / widowed.

Another change in the instrument was made in Question 9 (Why did you enroll in an Open College Course?) The category to qualify for graduation from Ryerson faster was changed to also include York University. Three of the respondents had written York University into the questionnaire.

In Question 5 the respondents were asked to mark their highest educational level. Instead of marking their highest educational level, however, six individuals marked each educational level they had achieved. To decrease the chance of this occurring again the word highest has been underlined, and the respondents are now asked explicitly to select only one answer.

The fourth place where it was obvious clarification was required was in the description of how to answer Questions 11 through 33. The respondents

were asked to answer the statements that best describe themselves using a numbered five-point Likert scale. Instead of placing a number in the correct location, however, three respondents entered the descriptive words rather than the corresponding numbers. In order to clarify the directions the respondents will now be asked explicitly to enter only a number.

One individual failed to complete the last page of the questionnaire. This respondent may not have known that there was writing on the reverse side of page 3. The word over has been placed at the bottom of page 1 and 3 in an attempt to eliminate errors of omission.

These changes and additions to the instrument are seen as improvements that will correct both obvious omissions, as well as misleading and ambiguous questions. This will lead to more reliable data and greater ease during analysis.

Questions 11, 13, 15, 17, 19, 21, 23, 25, 27, 29, 30, 32, and 33 are designed to measure the importance of Knowles' principles of adult education to effective learning by students at Open College. What follows here is a general analysis of the data collected in the pilot study. The analysis is organized according to Knowles' five principles of adult learning.

1. Questions 11, 21, 29, and 33 all pertain to the

concept of the learner.

2. Questions 13, 23, and 30 address the role of the learner's experience.

3. Questions 15 and 19 pertain to adult readiness to learn.

4. Questions 25 and 32 look at adult orientation to learning.

5. And finally, Questions 17 and 27 examine adult motivation to learn.

1. The concept of the learner

11. I prefer very explicit directions describing how to do assignments.

The majority of the respondents (19 or 61.3%) indicated they preferred explicit directions. Only seven (22.6%) of the respondents indicated that they did not prefer explicit directions. The other five (16.1%) of the surveyed group, chose a neutral response to this question.

The data for this question are not entirely surprising particularly when it is recalled that approximately 20 of the 31 members of the pilot study came from an introductory accounting course. The

nature of the course requires a good deal of direction to complete the basic accounting assignments. It remains to be seen whether this desire for explicit direction describing how to do assignments will be born out in the larger study of Open College learners.

21. I prefer courses where I have total freedom to develop my own assignments for grading.

There were 30 responses to this question. Six individuals (20% of the pilot study) preferred total freedom to develop their own assignments for grading while 14 (47%) of the respondents did not prefer this type of course. Ten respondents (33% of the group) answered with a neutral response. The responses to this question seem again to reflect a desire for learner guidance.

29. In order to learn effectively I need a teacher / tutor who gives explicit directions.

On closer scrutiny of this Question it appeared to be very similar to question 11 and therefore was redundant. This question has been eliminated from the instrument.

33. I prefer courses where the course designer selects the assignments for grading.

There were 30 responses to this question. Surprisingly 14 (47% of the pilot study group) answered with a neutral response. Nine (30%) of the respondents, indicated they prefer a course designer to select the assignments for grading and eight (27%) said they did not.

In reviewing this question the high proportion of neutral responses was of concern, as this may reflect confusion or misunderstanding on the part of the respondents. The question was not thought to be ambiguous or misleading, however, and was left unchanged in the questionnaire. The high percentage of neutral responses may prove to be an anomaly that is not reflected in the statistics of the larger study.

2. The role of the learner's experience.

13. Experience I gained throughout my life played a big part in my successful completion of the course.

This question was eliminated from the

questionnaire because it did not take into consideration those individuals who did not successfully complete the course.

23. I was able to draw on life experiences when completing the assignments.

Of the 30 respondents answering this question 21 (70%) felt that life experiences helped them in completing the assignments. This is contrasted with only 3 (10%) of the group who did not. Six (20%) of the group, gave a neutral response to this question.

30. I relied on my life experiences when answering the examination questions.

There were only 25 responses to this question because at least six individuals (20% of the group) had not taken examinations from Open College when the pilot study was administered. This percentage of non-response while rather significant in this pilot study group, should not prove as significant in the larger study because the study group will be significantly larger. In addition, there will be a much higher percentage of learners who have taken several courses

from Open College and they will be able to reflect upon previous examination experience.

Of the 25 respondents 10 (40%) relied on life experiences when answering the examination questions. Seven individuals (28% of the pilot study group) did not rely on their life experiences when answering the examination questions. Another eight (32%) of the respondents chose to answer this question with a neutral response.

3. Readiness to learn.

15. I enrolled in the course because I felt a need to learn more about the subject matter.

There were 30 responses to this question and 16 (53.3% of the study group) agreed that the reason they enrolled in the course was because they had a need to know more about the subject matter. Eight individuals (26.7%) gave a neutral response, and only six persons (20%) answered this question negatively.

19. I enrolled in the course for the sheer joy of learning.

Eight individuals (25.8% or the 31 respondents) enrolled in the course for the sheer joy of learning. Another six persons (19.4%) gave a neutral response to this question, while the majority of the respondents (17 or 54.8%) did not enroll in the course for the sheer joy of learning.

4. Orientation to learning.

25. I enrolled in the course in order to perform more effectively in a particular aspect of my life.

This question was answered by 30 respondents. Twelve (40%) of those answering this question felt this to be the reason they enrolled in the course. Another 11 (36.6%) denied that this was the reason they took the course. Seven individuals (23.4%) answered the question neutrally.

32. I enrolled in the course in order to be able to live in a more satisfying way.

This question seemed to confuse five of the 30 respondents who answered the question. Comments were written beside the question indicating a need for

clarification. This question was re-examined and rewritten on the questionnaire as follows: I enrolled in the course to complement previously gained knowledge.

5. Motivation to learn.

17. I was motivated in the course by internal rewards such as a feeling of increased self-esteem.

The 31 respondents were almost equally split on this question. Ten (32.3%) agreed that this is what motivated them in the course. The exact same number (10) denied that internal rewards played a part in motivating them in the course. Eleven (35.4%) of the respondents felt neutral on this question.

27. I was motivated in the course by external rewards such as a potential salary increase or a better job.

This question was answered by all 31 respondents and, unlike Question 17, persons were able to identify whether external rewards motivated them during the course. Eleven (35.5%) of the respondents said yes

they were motivated in the course by external rewards. Fifteen individuals (48.8%) said external rewards did not motivate them. Only 5 persons (16.1%) felt neutral on this question.

Questions 12, 14, 16, 18, 20, 22, 24, 26, 28, and 31 are taken directly from the PET type test (Cranton and Knoop, 1990).

12. I am misunderstood.

This question was answered by 30 respondents. Only one individual felt he / she was misunderstood while 21 (70%) responded negatively to this question. Eight individuals responded neutrally to this question.

14. I feel that I accomplish nothing.

The 31 respondents in general felt this not to be true of them. Twenty-eight (90%) felt this was untrue of themselves. The remaining three individuals recorded a neutral response. No one felt this to be a true statement reflecting themselves.

16. I forget appointments.

Again, the response to this question was very negative. Twenty-seven (87.1%) of the pilot study respondents, felt this to be untrue of themselves. Only one individual felt this statement reflected himself / herself, and three persons chose a neutral response.

18. I can not find the right papers or tools.

Twenty-nine respondents answered this question; and 28 (96.5%) felt this question to be untrue of themselves. The remaining individual answered neutrally.

20. People call me a day dreamer.

This question was answered by the entire pilot study group. Twenty-four individuals (77.4%) responded negatively to this question. Five persons (16.1%) said this was true of them and the remaining two individuals (6.5%) answered neutrally.

22. Others consider me a prophet.

This question was answered by 30 individuals. Two individuals said yes others consider them prophets (6.6% of the pilot study). Twenty-eight (93.4%) answered negatively and one individual answered neutrally.

24. I don't turn up on time.

Question twenty-four was answered by thirty respondents. Two individuals (6.6%) marked this question in the affirmative. Four persons (13.2%) of the study group, marked their questionnaire neutrally, and the remaining 24 (80.2%) recorded a negative response.

26. My working environment is chaotic.

Thirty-one respondents answered this question. Twelve (38.7%) answered positively that their work environments were chaotic while a similar number answered negatively. The remaining seven persons (22.6%) answered this question neutrally.

28. I misplace my possessions.

There were thirty-one respondents to this question and only one individual replied positively. Another three individuals were neutral and 27 of the 31 respondents (87%) gave a negative response to this question.

31. I muddle through life.

Of the thirty responses to this question not one was in the affirmative. Three persons answered neutrally while the remaining 27 respondents (90%) answered negatively.

32. I enrolled in the course in order to complement previously gained knowledge.

There were thirty responses to this question. Twelve individuals (40%) answered positively to this question while 11 (36.7%) answered negatively. Seven responses (23.3%) were neutral.

33. I prefer courses where the course designer selects the assignments for grading.

There were thirty responses to this question. Nine responses (30%) were positive, while eight (26.7%) were negative. There were 13 neutral responses representing 43.3% of the population.

34. Please record in the space below any additional comments you may wish to make regarding your open college experience.

This optional open-ended question yielded eight additional comments. These comments can be divided into two groups. Four individuals praised Open College and the employees, while the remaining four individuals complained about the amount of work required to complete a course.

Problem Restatement

While there has been a great deal of growth in the courses and degrees offered through distance education, there has been very little research devoted to examining what is known about how adults learn related

to distance education practices. Garrison (1989)

Understanding Distance Education - a framework for the future states:

The majority of distance education is concerned with meeting the educational needs of adults. However, while educators in both fields are generally aware of this commonality, there doesn't seem to have been much interest in exploring this relationship. Distance educators have not made substantial efforts to integrate the larger literature base of adult education in common areas of study and adult educators have not enthusiastically embraced distance education methods. (p.103)

While distance education began in 1889, adult education as a field of study began only in 1926 with Edward Lindeman's work The Meaning of Adult Education. Serious research efforts into adult education, however, began in the early 1960s. Similar serious research efforts into distance education, however, did not commence until the 1981 when Borje Holmberg wrote Status and Trends of Distance Education (Garrison, 1989).

Distance education today is nearly twenty years behind adult education as a field of study (Garrison,

1989). This is based on the lack of a widely accepted core of theory unique to distance education. Garrison (1989) writes that distance education and adult education out of necessity will move closer together in the future. Distance education with its ever increasing technological base and flexibility of delivery will become integrated with adult education learning theory to better meet the needs of an ever increasing group of adult learners.

Utilizing the 1989 - 1990 student population of Open College, this thesis, through the revised 34 question instrument, examined the applicability of Malcolm Knowles' principles of adult education to the distance education format. Within this context the purpose of this study was four fold:

1. To identify the demographic characteristics of Open College students, and determine their motivation for enrolling in a distance education course at Open College
2. To compare the institutional practices of Open College to Malcolm Knowles' five principles of adult education
3. To quantify the importance of Malcolm Knowles' five principles of adult education to effective learning by students at Open College

4. To identify institutional practices that assist or deter effective learning at Open College.

Chapter Four

Findings

Personal and Demographic Variables

The typical Open College student is a married woman between the ages of 36 and 45 years. She is fully employed, has no dependent children, has at least some university education, and lives within 50 miles of Open College.

Table 3 provides the full details of the personal and demographic variables of the respondents by gender, age, marital status, number of dependent children, education level, distance from Open College, employment status, courses taken, and mode. As indicated earlier, a total of 703 questionnaires were mailed. There were 54 questionnaires returned because the individuals had moved and left no forwarding address. This left a total of 649 possible returns. There were 294 completed questionnaires returned resulting in an overall response rate of 45.3%.

Of the 294 respondents, about 23% were males and 77% females. The respondents ranged in age from under 20 to over 61 years, but over 46% were between the ages

of 31 to 46.

Over 58% were married while a surprisingly high percentage had never been married (26.2%). It is also noteworthy that 51% had no dependent children. The educational level of the respondents was quite high with over 64% having either a university degree or at least some university education. Over two thirds of those answering the questionnaire live within 50 miles of Open College. In terms of employment, more than 83% indicated they were employed outside of the home and 62% of these were employed on a full-time basis. Most of the respondents had taken only one course (49%) from Open College. More than two thirds of the respondents indicated they had taken their course(s) from Open College in the audio/cassette mode.

Table 3

Summary of personal and demographic variables of respondents

	<u>Frequency</u>	<u>Percent</u>
All Respondents	294	100
Gender		
Female	226	77.1
Male	67	22.9
	1 missing	
Age		
20 & under	1	.3
21 to 25	38	12.9
26 to 30	36	12.2
31 to 35	44	15.0
36 to 40	46	15.6
41 to 45	46	15.6
46 to 50	41	13.9
51 to 55	19	6.5
56 to 60	8	2.7
61 & up	15	5.1
Marital Status		
Married	172	58.5
Never Married	77	26.2
Separated/Divorced/Widowed	44	15.0
Other	1	.3
Number of Dependent Children		
0	150	51.0
1	51	17.3
2	71	24.1
3	20	6.8
4	1	.3
5	0	0.0
6	1	.3

Table 3 (continued)

	<u>Frequency</u>	<u>Percent</u>
Education Level		
Less than High school	1	.3
Some High school	6	2.0
High school Grad.	12	4.1
Some Community College	22	7.5
Community College Grad.	22	7.5
Some University	108	36.7
University Grad	81	27.6
Post Graduate Educ.	41	13.9
	1 missing	
Distance from Open College		
Live in Metro	114	38.8
Within 50 Miles	85	28.9
51 to 100 Miles	29	9.9
101 to 150 Miles	19	6.5
151 to 200 Miles	6	2.0
201 Miles or More	41	13.9
Employment Outside the Home		
Yes	246	83.7
No	47	16.0
	1 missing	.3
Status of Employment		
Full-time	183	62.2
Part-time	67	22.8
	44 missing	15.0
Number of Courses Taken Through Open College		
1	144	49.0
2 - 3	102	34.7
4 - 5	33	11.2
6 - 7	11	3.7
more than 7	4	1.4
Mode of Course		
Audio / Cassette	202	68.7
Written / Correspondence	77	26.2
Both	11	3.7
	4 missing	1.3

Reasons for enrollment in Open College

The respondents were asked to indicate the main reason they enrolled in an Open College course. The results from this question showed that the main reason individuals enroll in Open College courses is to qualify for graduation from Ryerson or York University at an accelerated rate (27.2%). This was followed by interest (20.4%), and to qualify for a job promotion (19%). Table 4 provides details of the main reasons Open College students enrolled in their course.

Table 4

Reasons for enrollment in Open College

	<u>Frequency</u>	<u>Percent</u>
Interest	60	20.4
Qualify for University	13	4.4
For Job Promotion	27	9.2
To do an Existing Job Better	56	19.0
To Graduate from Ryerson or York University faster	80	27.2
Self-Satisfaction	16	5.4
Distance Mode	32	10.9
Other	10	3.4

While the reasons for entering Open College are varied, the expectations of the students in terms of a course grade are not. When asked what grade they expected in Open College courses, 41.5% expected an A,

and 48.6 percent expected a grade of B (see Table 5).

Table 5

Grade expectations

	<u>Frequency</u>	<u>Percent</u>
A	122	41.5
B	143	48.6
C	22	7.5
F	3	1.0
	4 missing	1.3

Application of Malcolm Knowles' principles of adult education

Students were asked through a series of 11 questions (questions numbered 13, 22, 33, 24, 30, 16, 20, 26, 32, 18, 28) to indicate their preference on a five-point Likert scale with regard to Malcolm Knowles' five principles of adult education. These principles included the concept of the learner (psychological need to be self-directed), the role of past experience, readiness to learn, orientation to learning, and motivation to learn. Tables 6 to 16 on the following pages summarize the responses by these adult learners.

1. The concept of the learner

Question 13

I prefer very explicit directions describing how to do the assignments.

Table 6

Question 13

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	3	1.0
2. no	26	8.8
3. yes & no	44	15.0
4. yes	113	38.0
5. Yes!	107	36.5
missing	1	.3
Total	294	100.0

Less than 10% of the respondents answered negatively to this question. Another 15% percent responded neutrally, while approximately 75% answered positively to the question. They prefer very explicit directions describing how to do assignments.

Question 22

I prefer courses where I have total freedom to develop my own assignments for grading.

Table 7

Question 22

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	37	12.6
2. no	120	40.8
3. yes & no	87	29.6
4. yes	32	10.9
5. Yes!	16	5.4
missing	2	.7
Total	294	100.0

More than 53% of those answering the question do not like total freedom to develop their own assignments for grading. In addition, 29.6 % answered the question neutrally, while only 16.5% answered positively.

Question 33

I prefer courses where the course designer selects the assignments for grading.

Table 8

Question 33

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	14	4.9
2. no	31	10.5
3. yes & no	109	37.1
4. yes	101	34.4
5. Yes!	32	10.9
missing	7	2.4
Total	294	100.0

Less than 16% of those answering this question responded negatively when asked if they preferred courses where the course designer selects the assignments for grading. Approximately 37% answered the question neutrally, while over 45% indicated a positive response to the question.

2. The role of past experience

Question 24

I was able to draw on my life experiences when completing the assignments.

Table 9

Question 24

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	25	8.5
2. no	43	14.6
3. yes & no	79	26.9
4. yes	105	35.7
5. Yes!	39	13.3
missing	3	1.0
Total	294	100.0

Approximately 23% of the students reported that they were unable to draw on life experiences when completing the assignments. Another 49% stated that they were able to draw on life experiences when completing assignments; and the remaining 27% responded

neutrally.

Question 30

I relied on my life experiences when answering the examination questions.

Table 10

Question 30

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	43	14.6
2. no	93	31.6
3. yes & no	110	37.4
4. yes	34	11.6
5. Yes!	8	2.7
missing	6	2.0
Total	294	100.0

Approximately 46% of those answering this question responded negatively. Another 37.2% answered neutrally. Only 14.6% of the learners reported that life experiences were of assistance when answering the examination questions.

3. Readiness to learn

Question 16

I enrolled in the course because I felt a need to learn more about the subject matter.

Table 11

Question 16

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	16	5.4
2. no	25	8.5
3. yes & no	58	19.7
4. yes	113	38.4
5. Yes!	81	27.6
missing	1	.3
Total	294	100.0

Approximately 14% of the students replied negatively to this question. Another 19.7% responded neutrally. While the majority of the students (66%) responded positively. They enrolled in the course because they felt a need to learn more about the subject matter.

Question 20

I enrolled in the course for the sheer joy of learning.

Table 12

Question 20

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	33	11.2
2. no	84	28.6
3. yes & no	102	34.7
4. yes	56	19.0
5. Yes!	16	5.4
missing	3	1.0
Total	294	100.0

Approximately 40% of the respondents indicated they did not enroll in the course for the sheer joy of learning. An additional 34.7% responded neutrally to this question; and 24.4% indicated this was why they enrolled in the course.

4. Orientation to learning

Question 26

I enrolled in the course in order to perform more effectively in a particular aspect of my life.

Table 13

Question 26

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	28	9.5
2. No	55	18.7
3. yes & no	63	21.4
4. yes	99	33.7
5. Yes!	47	16.0
missing	2	.7
Total	294	100.0

Less than 19% of the study group answered negatively to this question. Another 21.4% responded neutrally, and the remainder (49.7%) answered positively. They enrolled in the course in order to perform more effectively in a particular aspect of their life.

Question 32

I enrolled in the course in order to complement previously gained knowledge.

Table 14

Question 32

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	16	5.4
2. no	38	12.9
3. yes & no	74	25.2
4. yes	110	37.4
5. Yes!	53	18.0
missing	3	1.0
Total	294	100.0

Approximately 13% of the respondents answered this question negatively. Another 25.2% answered neutrally, while more than 55% agreed that they had taken the course in order to complement previously gained knowledge.

5. Motivation to learnQuestion 18

I was motivated in the course by internal rewards such as a feeling of increased self-esteem.

Table 15

Question 18

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	30	10.2
2. no	43	14.6
3. yes & no	72	24.5
4. yes	112	38.1
5. Yes!	35	11.9
missing	2	.7
Total	294	100.0

This question was answered negatively by slightly less than 25% of the respondents. An additional 24.5% answered neutrally, while 50% agreed that they were motivated in the course by internal rewards such as a feeling of increased self-esteem.

Question 28

I was motivated in the course by external rewards such as a potential salary increase or better job.

Table 16

Question 28

<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
1. No!	58	19.7
2. no	86	29.3
3. yes & no	67	22.8
4. yes	57	19.4
5. Yes!	23	7.8
missing	3	1.0
Total	294	100.0

Forty-nine percent of those answering this question answered negatively, while an additional 22.8% responded neutrally. Just over 27% responded yes, they were motivated in the course by external rewards such as a potential salary increase or better job.

Identifying - introverted / intuitive personality types

Learners were asked to indicate their preference on a five-point Likert scale to a series of 10 questions (questions numbered 14, 15, 17, 19, 21, 23, 25, 27, 29, 31) in an effort to identify the personality type introverted / intuitive. This personality type is associated with being self-directing in learning activities. Table 17 summarizes the responses by these adult students. Positive responses to the 10 questions reflect the introverted / intuitive personality type.

Table 17

Identifying - introverted / intuitive personality types

<u>Question</u>	<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
14. I am misunderstood.	1. No!	85	28.9
	2. no	152	51.7
	3. yes & no	43	14.6
	4. yes	9	3.1
	5. Yes!	2	.7
	missing	3	1.0
	Total	294	100.0
15. I feel I accomplish nothing.	1. No!	190	65.7
	2. no	69	23.5
	3. yes & no	18	6.1
	4. yes	10	3.4
	5. Yes!	2	.7
	missing	5	1.7
	Total	294	100.0
17. I forget appointments.	1. No!	153	52.0
	2. no	105	35.7
	3. yes & no	24	8.2
	4. yes	6	2.0
	5. Yes!	3	1.0
	missing	3	1.0
	Total	294	100.0
19. I can not find the right papers or tools.	1. No!	127	43.2
	2. no	133	45.2
	3. yes & no	22	7.5
	4. yes	3	1.0
	5. Yes!	2	.7
	missing	7	2.4
	Total	294	100.0

Table 17 (continued)

Identifying - introverted / intuitive personality types

<u>Question</u>	<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
21. People call me a day dreamer.	1. No!	119	40.5
	2. no	119	40.5
	3. yes & no	33	11.2
	4. yes	12	4.1
	5. Yes!	5	1.7
	missing	6	2.0
	Total	294	100.0
23. Others consider me a prophet.	1. No!	125	42.5
	2. no	119	40.5
	3. yes & no	24	8.2
	4. yes	16	5.4
	5. Yes!	3	1.0
	missing	7	2.4
	Total	294	100.0
25. I don't turn up on time.	1. No!	143	48.6
	2. no	103	35.0
	3. yes & no	26	8.8
	4. yes	11	3.7
	5. Yes!	6	2.0
	missing	5	1.7
	Total	294	100.0
27. My working environment is chaotic.	1. No!	48	16.3
	2. no	100	34.0
	3. yes & no	79	26.9
	4. yes	38	12.9
	5. Yes!	24	8.2
	missing	5	1.7
	Total	294	100.0

Table 17 (continued)

Identifying - introverted / intuitive personality types

<u>Question</u>	<u>Response</u>	<u>Frequency</u>	<u>Percent</u>
29. I misplace my possessions.	1. No!	106	36.1
	2. no	124	42.2
	3. yes & no	39	13.3
	4. yes	17	5.8
	5. Yes!	3	1.0
	missing	5	1.7
	Total	294	100.0
31. I muddle through life.	1. No!	129	43.9
	2. no	117	39.8
	3. yes & no	31	10.5
	4. yes	8	2.7
	5. Yes!	3	1.0
	missing	6	2.0
	Total	294	100.0

Few respondents reflected the introverted / intuitive personality type. The range of positive answers to the ten personality questions was from 21.1% to 1.7% with a mean of only 7.42% of all respondents recording a positive response. On the other hand, students recorded negative responses to the ten personality questions. Often the highest number of responses was an emphatic No! The range of negative answers to these questions was from 50.3% to 89.2% with a mean of 80.6% of all respondents recording a negative answer.

The chi-square analysis by gender for items 13-33 are presented in Table 18. The significance levels are also included.

Table 18

Chi-square analysis by gender for items 13 - 33

<u>Item # and statement</u>	<u>Response</u>	<u>Gender</u>		<u>P</u>
		% M	% F	
13. I prefer very explicit directions describing how to do assignments.	agree	67	77	.39
	uncertain	18	14	N/S
	disagree	13	8	
14. I am misunderstood.	agree	3	4	.92
	uncertain	17	14	N/S
	disagree	80	82	
15. I feel that I accomplish nothing.	agree	8	2	.15
	uncertain	11	5	N/S
	disagree	82	93	
16. I enrolled in the course because I felt a need to learn more about the subject matter.	agree	63	57	.01
	uncertain	19	20	
	disagree	16	13	
17. I forget appointments.	agree	8	2	.10
	uncertain	9	8	N/S
	disagree	83	90	
18. I was motivated in the course by internal rewards such as a feeling of increased self-esteem.	agree	51	50	.61
	uncertain	18	26	N/S
	disagree	30	24	

Table 18 (continued)
Chi-square analysis by gender for items 13 - 33

<u>Item # and statement</u>	<u>Response</u>	<u>Gender</u>		<u>P</u>
		% M	% F	
19. I can not find the right papers or tools.	agree	4	1	.49
	uncertain	11	7	N/S
	disagree	85	92	
20. I enrolled in the course for the sheer joy of learning.	agree	22	25	.04
	uncertain	31	36	
	disagree	44	39	
21. People call me a day dreamer.	agree	10	4	.47
	uncertain	11	12	N/S
	disagree	79	84	
22. I prefer courses where I have total freedom to develop my own assignments for grading.	agree	24	14	.64
	uncertain	27	30	N/S
	disagree	48	56	
23. Others consider me a prophet.	agree	10	6	.001
	uncertain	17	6	
	disagree	73	88	
24. I was able to draw on my life experiences when completing the assignments.	agree	43	50	.52
	uncertain	19	29	N/S
	disagree	34	20	
25. I don't turn up on time.	agree	8	5	.68
	uncertain	6	10	N/S
	disagree	87	85	
26. I enrolled in the course in order to perform more effectively in a particular aspect of my life.	agree	51	49	.08
	uncertain	24	21	N/S
	disagree	24	30	

Table 18 (continued)
Chi-square analysis by gender for items 13 - 33

<u>Item # and statement</u>	<u>Response</u>	<u>Gender</u>		<u>P</u>
		% M	% F	
27. My working environment is chaotic.	agree	16	24	.14
	uncertain	34	26	N/S
	disagree	51	51	
28. I was motivated in the course by external rewards such as a potential salary increase or better job.	agree	30	27	.88
	uncertain	24	23	N/S
	disagree	44	51	
29. I misplace my possessions.	agree	9	6	.63
	uncertain	12	14	N/S
	disagree	79	80	
30. I relied on my life experiences when answering the examination questions.	agree	15	14	.35
	uncertain	30	40	N/S
	disagree	52	45	
31. I muddle through life.	agree	6	3	.32
	uncertain	12	10	N/S
	disagree	82	87	
32. I enrolled in the course to complement previously gained knowledge.	agree	54	56	.93
	uncertain	27	25	N/S
	disagree	18	18	
33. I prefer courses where the course designer selects the assignments for grading.	agree	48	45	.26
	uncertain	33	39	N/S
	disagree	18	14	

Note:

It should be noted that in many instances there were not the five frequencies per cell as convention dictates. This most likely has accounted for some of the differences across gender.

Additional comments made by Open College students

Question 34 is an open-ended question which reads: Please record in the space below any additional comments you may wish to make regarding your Open College experience. Of the 294 questionnaires received 173, or 58.8% of the respondents, included written comments to this question. The written responses were synthesized and classified into four categories: those pertaining to the tutor or teacher, to the administration of Open College, to the course, and finally those related to distance education. Many of the students' comments touched on more than one of these broad categories. What follows here is a synthesis of student comments.

1. Tutor / teacher.

Many of the comments focused on the role of the tutor at Open College. Those students who felt the tutor played a positive role commented that they received timely and well written feedback on their assignments and examinations which helped them with their next assignment. They wrote that they appreciated being treated as an adult and yet found the

tutor supportive when support was needed. This comment was often followed with an example of how understanding tutors had been when a family crisis interrupted their studies causing an assignment to be late.

A very common comment was that the tutor filled the gap and reduced the feeling of isolation that students in distance education programs often experience. Several students who had taken more than one course through Open College expressed the thought that the success of Open College as a educational entity depended on how well the tutors interacted and responded to the learners.

Not all comments received concerning tutors were positive. Many students complained that tutors were too rigid regarding late assignments, they were inaccessible and failed to return telephone calls, and were not timely with grading their assignments. One student commented that it was the first university level course she had ever taken and felt her tutor to be uncaring towards her. She urged tutors to be more vigilant toward those learners who need help and encouragement.

2. Administration of Open College.

Most comments concerning the administration of Open College were positive in nature. Comments tended to focus on how easy it was to apply to Open College. Other students really appreciated how accommodating course co-ordinators were in sending materials to them. They particularly appreciated being able to take the examination in their home community.

One student's comments express the thoughts of many. She wrote: "I have found the staff associated with Open College to be extremely helpful in assisting with course selection, interpreting course requirements and putting me in touch with my tutor. They've been very available by phone and very knowledgeable."

There were also requests for more courses at the third and fourth year level. And several students lamented the fact that they could not receive a degree from Open College.

Other students complained about the administration of Open College. Most of the complaints focused on things such as tapes, books, and study guides being slow to arrive thus causing them to be behind in the course, often even before the course started. Other complaints focused on the expense involved in taking

Open College courses.

3. The course.

Many students commented on how they enjoyed the course they had taken. They mentioned how well designed the course had been and how relevant the content was for them personally. Other students complained that there was not enough flexibility in the assignments. A need for more choices in the assignments was often commented upon.

There were many comments concerning the examinations. Most felt that the examination process somewhat demeaning. One student wrote that when she took the examination she felt like she was back in grade school. Another student's comments seem to summarized and express the sense of frustration regarding the examination process alluded to by many other students. He wrote:

In this information age I feel very strongly that examinations should be designed as open book exercises. We have so much information available it is important that we learn how to manage information -- select what is useful, apply it, and discard the rest. We must learn to be

creative thinkers and solve problems. To memorize and repeat a lot of facts to earn 50% - 60% of a final grade in a 3 hour examination does not make sense in this day and age. Take home examinations designed to test one's problem solving skills would provide a far more accurate evaluation of a person's ability and far better preparation for the twenty first century.

4. Distance education

Many comments were made that distance education fit the busy life style that adults lead. With this comment, however, the writers often went on to say they preferred courses in a classroom setting to distance education courses.

The consensus seemed to be that distance education was more difficult than traditional education programs. The reasons noted were:

1. a lot of self-motivation was required
2. organizational ability is required of the student
3. assignments are often difficult to understand
4. a larger amount of time was required for the course
5. the feeling of being isolated was detrimental to learning and to progress in the course. One student

wrote:

I did not like the isolation of distance education. I realize now so much of what I am able to achieve academically is catalyzed by the feedback I get from the instructor and my classmates. Without their encouragement, ideas, criticism or praise I feel lost, alienated, unable to judge my progress or the objectives of the course. So often we misunderstand one another -- it is worse without face-to-face contact or even regular phone calls.... I ended up deciding not to bother finishing the course. I am weary of the hours of blood, sweat tears, anxiety needed to get a "good mark" when it is all so impersonal. No one has even contacted me to ask whether I have dropped out of the course. Need I say more?

Another student wrote that Open College should mail post cards or make phone calls to students to ask if help was needed when assignments were late. She went on to write: "Sometimes we are embarrassed by our failures or tardiness or even feel selfish in doing something for ourselves and need help in refocusing our priorities in a world where so much is demanded of us by so many."

Summary of findings

Of the 294 respondents, approximately 23% were males and 77% females. The students ranged in age from under 20 to over 61 years, but over 46% were between the ages of 31 to 46. Over 58% were married while a surprisingly high percentage had never been married (26.2%). It is also noteworthy that 51% had no dependent children. The educational level of the respondents was high with over 64% having either a university degree or at least some university education. Over two thirds of those answering the questionnaire live within 50 miles of Open College. In terms of employment more than 83% indicated they were employed outside of the home and 62% of these were employed on a full-time basis. Most of those answering the questionnaire had taken only one course (49%) from Open College. More than two thirds of the respondents indicated they had taken their course(s) from Open College in the audio/cassette mode.

The students were asked to indicate the main reason they enrolled in an Open College course. The results to this question showed that the main reason individuals enroll in Open College courses is to qualify for graduation from Ryerson or York University

at an accelerated rate (27.2%). This was followed by interest (20.4%), and to qualify for a job promotion (19%).

Open College students have high expectations that they will do well in their course. More than 90% expect a grade of A or B.

The 11 questions related to Malcolm Knowles' principles of adult education indicate that most Open College students do not wish to be self-directed in their learning. This also came through in the analysis of Question 34 with students wanting increased tutor or administrative contact or control rather than less.

Students indicated that they were able to draw on life experience when completing the assignments. However, they had less success using their life experience when taking examinations. In general, they did not like the examination process calling it demeaning and questioning the relevance of examinations as practiced by Open College.

Two thirds of Open College learners enrolled because they felt a need to learn more about the subject matter. Only 24.4% enrolled for the sheer joy of learning.

Approximately 50% of the respondents enrolled in Open College in order to be able to perform more

effectively in some aspect of their life or to complement previously gained knowledge. They were, however, motivated in the course by internal rewards such as an increase sense of self-esteem rather than external rewards such as a potential salary increase or job promotion.

Few students exhibited the introverted / intuitive personality type associated with being a self-directed learner. The range of positive answers to the 10 personality questions was from 21.1% to 1.7% with a mean of only 7.42%. Often the highest number of responses to these questions was an emphatic No!

In the chi-square analysis of items 13 - 33, a significance difference across gender was identified in three cases. These differences most likely can be accounted for by the lack of frequencies per cell. In many instances there were not the five frequencies per cell as convention dictates.

Question 34 requested additional comments concerning the Open College experience. One hundred seventy-three individuals returned their questionnaire with written comments. This represents more than 58% of all returned questionnaires. Comments received were both positive and negative in nature and were classified into four categories: those pertaining to

the tutor or teacher, the administration of Open College, the course, and those related to distance education.

Chapter Five

Summary, Limitations, Discussion, and Conclusions

Summary

The purpose of this study was to determine the demographic characteristics of Open College students and to apply Malcolm Knowles' five principles of andragogy to these students. All 703 students who took a course from Open College in 1989 - 1990 were mailed a questionnaire. About 45% of those receiving questionnaires returned them. The questionnaire contained three sections. The first section included questions on personal and demographic information related to gender, age, marital status, number of dependent children, educational level, distance from Open College, employment, courses taken, reason for enrollment, and grade expectations. The second section included 21 questions pertaining to Malcolm Knowles' principles of andragogy, and questions to discover if Open College students had the introverted / intuitive personality type associated with the ability to be self-directed. The third section consisted of one open-ended question asking for additional comments

regarding the Open College experience. Over 58% of the respondents returned their questionnaires with written comments. The findings of this study are summarized below in point form:

Personal and demographic variables

1. Open College students are predominantly female (77.9%).
2. Approximately 46% of the students were between the ages of 31 and 46 years.
3. The majority of the students were married (58.5%) with no dependent children (51%). There were, however, a significant number of students who had never been married (26.2%).
4. Approximately two thirds of Open College students have either graduated from university or have previous university experience.
5. Slightly more than 67% of the students live within 50 miles of Open College.
6. Most students are employed outside of the home (83.7%) and 62.2% are employed on a full-time basis.
7. Approximately 50% of the students had only taken one course from Open College. An additional

- 34.7% had taken two to three courses.
8. Slightly more than two thirds of the students took their courses in the audio / cassette mode.
 9. The main reasons individuals enrolled in Open College courses were to graduate at a faster rate (27.2%), interest (20.4%), and to do an existing job better (19.0%).
 10. Open College students have high expectations regarding grades. More than 90% expect to receive a grade of A or B.

Principles of andragogy

11. Students were not self-directed in their learning. They preferred explicit directions on how to do assignments and for the course designer to select the assignments for grading.
12. Life experience assisted students to complete assignments. Students, however, were not able to utilize life experience when completing examinations.
13. Students enrolled in the course because they felt a need to learn more about the subject matter rather than for the sheer joy of learning.
14. Students enrolled in the course in order to perform

more effectively in some aspect of their life or to complement previously gained knowledge.

15. Students were motivated in the course by internal rewards such as a feeling of increased self-esteem rather than external rewards such as a job promotion.
16. There were no statistical differences in the responses based on gender.

Introvert / intuitive personality type

17. This personality type was a rarity among Open College learners.
18. There were no statistical differences based on gender.

Written comments in response to Question 34.

19. Open College students wanted to be asked to comment on their Open College experience.
20. A positive Open College experience requires a tutor who has the following characteristics: he / she is accessible, caring and supportive, understanding regarding late assignments, comments on papers and examinations are timely.

21. The ease of applying to Open College was greatly appreciated.
22. The course co-ordinator's knowledge of the available courses, and his / her ability to accommodate student's requests for tapes, books etc. in a timely manner was important to the students.
23. Being able to take examinations at a distance was very important to students.
24. A greater variety of courses, particularly at the third and fourth year levels were requested.
25. More choices and more flexible assignments were requested.
26. The examination process was thought to be irrelevant and demeaning. Open book, take home examinations or assignments that would test problem-solving skills were suggested.
27. Distance education was appreciated because of the flexibility home study allows.
28. Distance education was thought to be more difficult than traditional educational programs. Students noted the need for increased self-motivation and organizational ability.
29. Distance education took more time from busy schedules than did traditional educational programs

because assignments were often difficult to understand which meant they were held up waiting to discuss the problem with their tutor.

30. Distance education was thought to be impersonal. Students found working in isolation to be detrimental to their progress.

Limitations

There are at least two limitations which should be borne in mind when interpreting the results of this study. First, since data for this study were collected by mail, some Open College students chose not to respond. Therefore, the final sample may not be an unbiased representation of the entire population. This may prevent the results from being generalized to all Open College learners. Second, the questionnaire employed three separate types of questions and, therefore, there remained the possibility that this may have confused or frustrated the respondents, thus affecting their responses.

Discussion

The students of Open College are predominantly females between the ages of 31 to 46 years who are employed outside the home. Women may be attracted to Open College because of the courses offered. More likely, however, the high percentage of female students at Open College merely reflects women seeking an educational format that fits their busy life style with its multiple roles. Attendance at Open College may also represent the unfulfilled dream of a university education that may have been denied many women.

Despite Open College being available to all adult applicants regardless of past educational experience, more than two thirds of the students had previously attended university. Only 4.1% of the students had only attained high school graduation. Open College seems to represent an opportunity to continue university learning, or complete a university degree. It does not represent the traditional trajectory of high school graduate advancing into university.

Despite Open College being a distance education institution, more than two thirds of the students live within fifty miles of the school. Only 13.9% live at a distance of more than two hundred miles. The

predominant reason students decided to take a course from Open College had little to do with distance from school since the majority of students live within commuting distance. It had to do more with convenience. Home study fits in to the busy lives of adults.

Students were not self-directed in their learning. They wanted explicit directions on how to do the assignments and for the course designer to select the assignments for grading. There may be several reasons for this lack of interest in self-direction.

The first is that the courses students are being exposed to are not set up to be self-directed. Each course has explicit directions on how to proceed. Assignment selections are limited and the examination structure is traditional.

The second reason that self-direction may have been rejected is that self-direction is more difficult. It takes a greater amount of student time and energy to plan and develop an assignment for grading. This time requirement is particularly important because the student population is already leading busy lives with multiple roles.

Probably the most important reason self-directed learning was rejected, however, was that learners have

never been exposed to self-direction in a university environment. In order to be self-directed the student must know how to be self-directed.

Students utilized their life experience when completing the assignments but felt frustrated because they were not able to do the same on the examinations. The examinations seemed to be a major concern to these students. Many could not see the relevance of the traditional examination format to their situation in life. These mature students could not see the practical value of the examinations. They enrolled in the course to learn more about the subject matter and to perform more effectively in some aspect of their life. While the assignments could be manipulated to solve a personal or business problem, they were not able to do this with the examinations.

I found it interesting to note that the students were not taking courses for the sheer joy of learning. They were, however, motivated in the course by internal rather than external rewards. Motivation for taking the course was based on the course providing the learners with rewards such as increased self-esteem, recognition, self-confidence, better quality of life or self-actualization.

There were few introverted / intuitive personality

types identified. One reason for this may be that the structured nature of the Open College program, and the amount of motivation and organizational ability needed to progress through it, discourages this personality type from enrolling. They may be more interested in independent learning projects external to the university environment.

In the chi-square analysis of Questions 13 -33 there were statistical differences based on gender identified in three occasions. It should be noted, however, that in many instances there were not the five frequencies per cell as convention dictates. This most likely accounted for the differences across gender.

Criticism of Knowles' re: self-directed learning

It was Knowles' position that adult learners have a psychological need to be self-directing. He contends that the very psychological definition of adult is "one who has arrived at a self-concept of being responsible for one's own life, of being self-directing" (Knowles, 1985, p. 9). Adult dependent behavior in educational setting he attributes to previous conditioning. Knowles (1985) cautions that this dependent behavior of adults is unnatural. When adults assume a position of

dependency in a learning environment, they have internal conflicts which interfere with the learning process.

Cross (1988) disagrees with Knowles. She postulates a plausible explanation to explain why some individuals are self-directed and others are not. In her research she recognized the role that physiological aging, sociocultural characteristics, and developmental stages, play in an adult's ability to engage in self-directed learning. Cross (1988) developed a conceptual framework that incorporates the characteristics of adults as learners in an attempt to explain the differences between adults and children as learners. This framework is also useful for looking at the ability to be self-directed in learning environments.

In the characteristics of adults as learners (CAL) framework an individual's position on the physiological and life phase dimensions are primarily related to chronological age. Younger adults generally have better eyesight, hearing and an ability to process information more quickly (fluid intelligence) than older adults. We also know that younger adults view themselves as preparing, or building, for the future (Cross, 1988).

Older adults may need to compensate for

discrepancies in eyesight, and hearing by sitting in brighter lights, and areas where they can be sure to hear. The slower processing of information in older adults is compensated for, by the accumulation of knowledge through life experience (crystallized intelligence) (Cross, 1988).

Older adults may express a readiness to learn because of a change in his / her life that is either approaching, or it may have just occurred. Havighurst (1972) (cited in Cross, 1988) called these breaks in the unfolding of an individual's life -- "teachable moments". The concept of the teachable moment helps explain why childbirth classes are popular among young expectant adults, and retirement courses with sixty year old employees. Cross (1988) refers to these changes in one's life as developmental phases. These developmental phases experienced by adults, are age dependent.

Self-concept (one's perception of themselves) is directly related to the developmental stage of the individual. Developmental stages, unlike developmental phases, are not related to the age of the adult. Those adults with "higher levels of ego, moral and cognitive development are able to assume increasing responsibility for the direction of his / her learning

activities because they have reached higher levels of developmental maturity" (Cross, 1988, p. 238). These individuals have a self-concept that includes a perception of themselves as being responsible for his / her own learning. These are self-directing adults. The CAL theoretical framework, therefore, considers self-concept a function of developmental growth rather than a matter of whether an individual is a child, or an adult.

The CAL framework also includes situational characteristics of the adult learner. These situational characteristics give an additional explanation of why adults engaged in institutional learning may not tend to be self-directing.

Adults generally are part-time learners while children are primarily full-time learners. Cross (1988) does not elaborate on whether this has an impact on self-directed learning. She merely notes it as a difference between adults and children as learners.

Cross (1988) does, however, note that children are required to attend school while adult education is primarily voluntary. The voluntary nature of adult education, however, exists on a continuum. On the one hand there are the self-directed learning projects undertaken as a hobby, and at the other end of the

spectrum there are the re-licensing requirements for certain professions. There is also much adult learning that falls somewhere between these two poles.

Cross (1988) makes the point that the voluntary nature of the learning is particularly relevant to self-directed learning. The further the adult learner moves down the continuum from voluntary toward coercion, the power to determine what is studied moves from the learner to the teacher. Thus there is a shift from solving the adult's learning problem, to satisfying the teacher's requirements. As this shift occurs the learner becomes less self-directed.

Conclusions

The mature nature of the Open College students with their busy life style and multiple roles made an ideal population to apply Malcolm Knowles' principles of andragogy. While self-direction in an institutional learning environment was rejected, the other principles appear to have been supported.

1. Role of the learners' experience

Open College students indicated that they used their experience to complete assignments. However, they were not able to use their experience to the same extent when completing the examinations. This was a point of contention for the students. The examination process was felt to be demeaning and irrelevant for them.

2. Readiness to learn

Students indicated that they enrolled in Open College in order to learn more about the subject matter. They experience a need to know. Courses were taken for practical rather than esoteric reasons.

3. Orientation to learning

Open College students enter courses with a life-centered, task-centered or problem orientation to their learning. This was reflected in the written comments received concerning the irrelevance of the examination process. These adults could not see a practical application to the examinations.

4. Motivation to learn

While these adults approached education in a very practical way, they indicated that the predominant motivation to learn was internal rather than external. They received feelings of increased self-esteem, greater self-confidence and self-actualization. For the most part they were not enrolled in order to receive a raise in pay or promotion at work.

There appears to be a nucleus of students who enjoy taking courses from Open College. For these adults Open College fits their busy lives and they will continue to take courses regardless of the distance education practices of Open College. There are, however, institutional practices that could promote a more satisfactory Open College experience for its learners.

The courses developed must continue to be practical and relevant to the students at Open College. This practical nature of the course material must be reflected not only in the assignments, but also the examinations. This will enable learners to utilize their experience and also permit them to adapt the course material to their individual needs.

For the most part, students felt the administration of Open College was sensitive to their needs. They commented on the timely response from co-ordinators when sending material to them, and also how knowledgeable the co-ordinators were regarding the courses. They were, however, more critical of tutors. Tutors need to be sensitized to the adult educational experience. They also must be more timely returning the assignments, more available to their students, and project a caring, understanding, and supportive image.

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Appendix A

DEAR OPEN COLLEGE STUDENT:

In the 1989 - 1990 school year you enrolled in a distance education course from Open College. As a student in one of the Open College courses I am seeking your opinion regarding this experience.

I am a tutor at Open College, and I am undertaking a Master's Thesis in Education at Brock University in St. Catharines, Ontario. My thesis involves the relationship of adult education to the distance education format. As a student in a distance education course your opinion is of particular interest to this study.

The questionnaire enclosed consists of two parts. The first part is concerned with personal information about yourself. The second part of the questionnaire asks you to reply to statements that most closely represent your preferences. A five point scale is used to record your response.

Please DO NOT sign the questionnaire. Your response will remain anonymous and confidential. Your participation is, of course, voluntary.

Please answer all the questions and return the completed questionnaire to me in the enclosed stamped self-addressed envelope by October 15, 1990.

Thank you for your cooperation.

Yours truly,

Richard Robinson R.N., M.S.

DEAR OPEN COLLEGE STUDENT:

Recently you received a letter and questionnaire in the mail. If you have returned it to me thank you and please disregard this follow-up letter. If you have not returned it yet please take the time to read this letter and complete the questionnaire now. Your opinion is important. Please return only one completed questionnaire. I am a tutor at Open College, and I am undertaking a Master's Thesis in Education at Brock University in St. Catharines, Ontario. My thesis involves the relationship of adult education to the distance education format. As a student in a distance education course your opinion is of particular interest to this study.

The questionnaire enclosed consists of two parts. The first part is concerned with personal information about yourself. The second part of the questionnaire asks you to reply to statements that most closely represent your preferences. A five point scale is used to record your response.

Please DO NOT sign the questionnaire. Your response will remain anonymous and confidential. Your participation is, of course, voluntary.

Please answer all the questions and return the completed questionnaire to me in the enclosed stamped self-addressed envelope by October 29, 1990.

Thank you for your cooperation.

Yours truly,

Richard Robinson R.N., M.S.

QUESTIONNAIRE

PLEASE DO NOT PUT YOUR NAME ON THIS QUESTIONNAIRE

DEMOGRAPHIC INFORMATION (place an X beside the category that best describes you)

1. GENDER

☐ male
☐ female

2. AGE

<input type="checkbox"/> 20 and under	<input type="checkbox"/> 41 - 45
<input type="checkbox"/> 21 - 25	<input type="checkbox"/> 46 - 50
<input type="checkbox"/> 26 - 30	<input type="checkbox"/> 51 - 55
<input type="checkbox"/> 31 - 35	<input type="checkbox"/> 56 - 60
<input type="checkbox"/> 36 - 40	<input type="checkbox"/> 61 and older

3. MARITAL STATUS

☐ married
☐ never married
☐ separated / divorced / widowed

4. NUMBER OF CHILDREN YOU ARE FINANCIALLY SUPPORTING (please write the number in the space provided below)

children

5. HIGHEST EDUCATIONAL LEVEL ACHIEVED (select only one)

☐ less than high school
☐ some high school
☐ completed high school
☐ some community college
☐ completed community college
☐ some university
☐ completed university degree
☐ post-graduate education

6. APPROXIMATE DISTANCE YOU LIVE FROM OPEN COLLEGE (select only one distance)

☐ living within Metropolitan Toronto
☐ outside Toronto but within 50 miles of Open College
☐ between 51 and 100 miles from Open College
☐ between 101 and 150 miles from Open College
☐ between 150 miles and 200 miles from Open College
☐ more than 200 miles from Open College

7. ARE YOU EMPLOYED OUTSIDE THE HOME?

_____ yes
_____ no

(only answer question # 8 if you are employed outside home)

8. IS YOUR EMPLOYMENT

_____ part-time
_____ full-time

9. HOW MANY COURSES HAVE YOU TAKEN THROUGH OPEN COLLEGE?

_____ 1
_____ 2-3
_____ 4-5
_____ 6-7
_____ more than 7 courses

10. WAS THE COURSE(S) TAKEN FROM OPEN COLLEGE IN 1989 - 1990
BY:

_____ written / correspondence or
_____ audio / cassette

11. WHY DID YOU ENROLL IN AN OPEN COLLEGE COURSE? Please
indicate the main reason. (select only one)

_____ special interest
_____ to qualify for entrance into a university program
_____ to qualify for a job promotion
_____ to be able to perform better in my existing job
_____ to qualify for graduation from Ryerson or York
_____ University at an accelerated rate
_____ self satisfaction
_____ courses accessible by distance mode
_____ OTHER (please write the specific reason below)

12. WHAT GRADE BEST REFLECTS THE GRADE YOU EXPECT IN OPEN
COLLEGE COURSES?

_____ A
_____ B
_____ C
_____ D
_____ F

BELOW IS A LIST OF STATEMENTS DESCRIBING INDIVIDUAL PREFERENCES. PLEASE INDICATE THE DEGREE TO WHICH EACH STATEMENT DESCRIBES YOU. USE THE FOLLOWING SCALE:

NO! ----- no ----- no & yes ----- yes ----- YES!

THE NO! AND YES! ANSWERS INDICATE STRONG OR EMPHATIC AGREEMENT WITH THE STATEMENT. THERE ARE NO RIGHT OR WRONG ANSWERS. PLEASE ENTER A NUMBER ONLY IN THE SPACE PROVIDED.

SCALE

- | | 1 | 2 | 3 | 4 | 5 |
|-----------|-----|----|----------|-----|------|
| | NO! | no | yes & no | yes | YES! |
| _____ 13. | | | | | |
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SCALE

1	2	3	4	5
NO!	no	yes & no	yes	YES!

- _____ 30. I relied on my life experiences when answering the examination questions.
- _____ 31. I muddle through life.
- _____ 32. I enrolled in the course in order to complement previously gained knowledge.
- _____ 33. I prefer courses where the course designer selects the assignments for grading.

34. PLEASE RECORD IN THE SPACE BELOW ANY ADDITIONAL COMMENTS YOU MAY WISH TO MAKE REGARDING YOUR OPEN COLLEGE EXPERIENCE.